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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,053	08/16/2006	Victor Evgenievich Zhitomirskiy	051862/313418	9605

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EXAMINER	
LEDYNH, BOT L	
ART UNIT	**PAPER NUMBER**
2858	

MAIL DATE	DELIVERY MODE
12/22/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/598,053	ZHITOMIRSKIY, VICTOR EVGENIEVICH	
	Examiner	Art Unit	
	Bot L. LeDynh	2858	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 September 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22 and 25-31* is/are pending in the application.

4a) Of the above claim(s) *12,13,20 and 21* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11,14-19,22,25,26 and 29-31* is/are rejected.

7)☒ Claim(s) *27 and 28* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 August 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *8/16/06;2/1/08*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's election of species I (claims 1-11, 14-19, 22 and 25-31) with traverse in the reply filed on 9/10/09 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

2. **Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim** as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

2. (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-11, 14-19, 22, 25-26, 29-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Ely et al (6118271). Ely et al discloses the same invention as claimed: A position encoder comprising: first (5, 315, etc.) and second (3, 311, …) members which are relatively movable along a measurement path;
an excitation winding (25, 317,…) and a sensor winding (27 and 29, on 319,…), at least one of which is carried by the first member; a magnetic field generator (3, 311,...) carried by the second member and operable to generate a magnetic field which varies

with position along the measurement path; a film of magnetizable material 23 which is located, in use, within said position varying magnetic field to cause the film to have a positionally varying magnetization state along the measurement path;

wherein the excitation and sensor windings are arranged relative to said film so that a mutual electromagnetic coupling between them varies in dependence upon the positionally varying magnetization state of said film of magnetizable material, so that when said excitation winding is energized with an excitation signal, a sensor signal is generated in said sensor winding that varies with the relative position between said first and second members; an excitation circuit (in 9) operable to generate an excitation signal for energising the excitation winding to cause the excitation winding to generate an excitation electromagnetic field which interacts with said film of magnetizable material in a non-saturating manner in the vicinity of said sensor winding; and

a processing circuit (in 9) operable to process the sensor signal generated in the sensor winding in response to the energisation of said excitation winding, to determine a value indicative of the relative position between the first and second relatively movable members; excitation emf being substantially perpendicular to the film (see Figs.2a, 21, etc.); in-homogeneity (unsaturated and saturated regions) spots being created in the film (23 or film carried by 319) by the magnet and excitation current; magnetic field generated by 3 or 311 would be substantially perpendicular to the film; ratio-metric function (col.12, line 33-40); series of figure of eight arrangement (col7, lines 32-44); 6025 being cobalt iron alloy which a soft magnetic material (having high permeability and low coercivity); linear (Figs.21, 24); the excitation emf inherently comprising a first

component orthogonal to the film surface and a second component parallel to the film surface which is insufficient to drive the film into and out of saturation; “substantially at said excitation frequency” being disclosed as ”comparable to that of the excitation current applied to the sensor head” (col.21, lines 52-55).

4. Claims 1, 4, 22 and 25-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Spies (DE19621886). Spies (DE19621886) discloses the same invention as claimed: A position encoder comprising: first 2 and second 1 members which are relatively movable along a measurement path;

an excitation winding (4.1, 4.2,…) and a sensor winding (5.1, 5.2, 6.1,…), at least one of which is carried by the first member; a magnetic field generator 1 carried by the second member and operable to generate a magnetic field which varies with position along the measurement path; a film of magnetizable material 3 which is located, in use, within said position varying magnetic field to cause the film to have a positionally varying magnetization state along the measurement path;

wherein the excitation and sensor windings are arranged relative to said film so that a mutual electromagnetic coupling between them varies in dependence upon the positionally varying magnetization state of said film of magnetizable material, so that when said excitation winding is energized with an excitation signal, a sensor signal is generated in said sensor winding that varies with the relative position between said first and second members; an excitation circuit (connecting to 4.1 and 4.2 operable to generate an excitation signal for energizing the excitation winding to cause the excitation winding to generate an excitation electromagnetic field which interacts with

said film of magnetizable material in a non-saturating manner in the vicinity of said sensor winding; and

a processing circuit (Fig.5) operable to process the sensor signal generated in the sensor winding in response to the energization of said excitation winding, to determine a value indicative of the relative position between the first and second relatively movable members; same frequency (58 and first sentence of the Abstract).

Allowable Subject Matter

5. Claims 27-28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Although specific columns, figures, reference numerals, lines of the reference(s), etc. have been referred to, Applicant should consider the entire applied prior art reference(s).

CONCLUSION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Bot LeDynh whose telephone number is 571-272-2231. The Examiner normally does not work on Fridays. The examiner can normally be reached on Mondays through Thursdays according to a FlexiMax schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, PATRICK J. ASSOUAD, SPE, can be reached on (571)272-2210.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786- 9199 (IN USA OR CANADA) or 571-272-1000.

BL/ 2009

/Bot LeDynh/
Bot LeDynh
Primary Examiner, Art Unit 2858

7.